II. REMARKS

Claims 1-15 are presently pending in this application. Claims 4 and 9-14 have been withdrawn pursuant to a restriction requirement. Claims 1-3, 5-8 and 15 stand variously rejected under 35 U.S.C. §§ 103 and 112.

Claim 1 has been amended to specify the nature of the second antigen by incorporating the limitations of previous claims 5, 6 and 7. Accordingly, claims 5 through 7 have been canceled without prejudice or disclaimer. Support for these amendments can be found throughout the specification and in the claims as originally filed. These amendments are made solely to expedite prosecution, are not intended in any way as an acknowledgment as to the correctness of the Examiner's position, and are made for reasons unrelated to patentability. No new matter has been added as a result of these amendments and entry thereof is respectfully requested.

Rejections Under 35 U.S.C.§ 103(a)

Claims 1-3, 5-8, and 15 stand rejected as allegedly unpatentable over Hsieh-Ma et al. (Cancer Research, 1992) or Weiner et al. (Cancer Research, 1993) or Ring et al. (Breast Epithelial Antigens, 1991) in view of Fanger et al. (Critical Reviews in Immunology, 1992) or Snider et al. (J. Exp. Med. 171:1957-1963, 1990).

Applicants traverse these rejections.

As amended herein, not only do the pending claims specify that the second binding site is capable of recognizing and binding the second antigen in an amount sufficient to induce production of antibodies in the patient, they also spell out the particular characteristics of the second antigen and the second binding site. In particular, the limitations of claim 6 (regarding the second antigen) and claim 7 (regarding the second binding site) have been incorporated into claim 1. Additionally, the second binding site does not include one recognized by 520C9. In contrast, all of the primary references describe bispecific antibody 2B1, in which the second binding site is

recognized by 520C9. In view of the foregoing, it is clear that none of the references teach or suggest the particular bispecific antibodies as claimed. Thus, the combinations of references cited by the Office do not render the precisely claimed invention obvious and Applicants respectfully request that the remaining rejections be withdrawn.

Rejections Under 35 U.S.C. § 112, First Paragraph

The Examiner has maintained the rejection of claim 6 under 35 U.S.C. § 112, first paragraph as allegedly lacking written description for failing to meet the deposit requirement. In particular, it is alleged that the Declaration of Deposit submitted on January 18, 2001 is insufficient because "some of the required elements of the statement regarding deposit are missing (including address of the depository and assurance that should the deposit become non-viable, a substitute viable culture will be furnished)." (Final Office Action, page 4).

Because all of the required elements were present in the declaration submitted January 18, 2001, Applicants traverse. The Declaration submitted January 18, 2001 fully complies with all the requirements of law. With regard to the address of the depository, Applicants note that this is clearly specified in paragraph 3 of the declaration. Further, the specification was previously amended to include the accession numbers and has been amended herein to reflect the current address of the ATCC Depository (as this address changed between the filing of the application and the filing of the Declaration of Deposit). Contrary to the Office's assertion, the Declaration regarding deposit of these hybridomas also plainly provides assurances that substitute viable cultures will be furnished should the original deposit become non-viable. (See, paragraph 6). Thus, Applicants have fully complied with all the deposit requirements and the rejection of the claims under 35 U.S.C 112, first paragraph, should be withdrawn.

III. CONCLUSION

In view of the foregoing, Applicant submits that the claims are now in condition for allowance and requests early notification to that effect.

Please direct all further communications regarding this application to:

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Respectfully submitted,

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Version Showing Changes Made to Specification

On page 29, paragraph beginning on line 26:

As described above, cell lines for 2B1 (CRL 10197), 1A7 (HB 10501), and 520C9 (HB 8696) have been deposited with the American Type Culture Collection (ATCC), 10801 University Boulevard, Manassas, VA 20110-2209 ~~12301 Parklawn Drive, Rockville, MD, USA (ATCC)~~. The ATCC accession numbers for the both antibodies disclosed herein are 452F2 (HB 10811), 741F8 (HB 10807), 520C9 (HB 8696), 759E3 (HB 10808), 454C11 (HB 8484), 387H9 (HB 10802), 113F1 (HB 8490), 317G5 (HB 8485, HB 8691), 34F2 (HB 11052), 650E2 (HB10812), 266B2 (HB 8486), 106A10 (HB 10789), 260F9 (HB 8488 and HB 8662), 33F8 (HB 8697), 9C6 (HB 10785), 35E10 (HB 10796), 140A7 (HB 10798), 788G6 (HB 8692), 200F9 (HB 10791), 697B3 (HB 10806), 120H7 (HB 10790), 203E2 (HB10799), 254H9 (HB 10792), 245E7 (HB 8489), 2G3 (HB 8491), 369F10 (HB 8682), 15D3 (HB 11342), 421E8 (HB 10793), 310B7 (HB 11752), 32A1 (HB 10795), 219F3 (HB10801), 42E7 (HB11751), 388D4 (HB 10794), 42H8 (HB 11830), 35E6 (HB 11769) and 36H3 (HB 11768).

Version Showing Changes Made to Claims

In the claims:
Please amend the claims as follows:

1. (Amended) A method of inducing an immune response in a patient, comprising the step of administering a bispecific antibody to the patient, said bispecific antibody comprising a first binding site capable of recognizing and binding a first antigen wherein said first antigen is FcgRIII and further comprising a second binding site capable of recognizing and binding a second antigen, in an amount sufficient to induce production of antibodies to said second antigen in said patient, wherein said second antigen is a cancer antigen selected from the group consisting of c-erbB-2, HMW mucin, HMW mucin II, p-glycoprotein and an antigen recognized by any of the following hybridomas: ATCC Accession Nos HB 11830, HB 11769, HB 11768, HB 10798, HB 10802, HB 8490, HB 8485, HB 8691, HB 11052, HB 10812, HB 8486, HB 10789, HB 8488, HB 8662, HB 8697, HB 10785, HB 10796, HB 10793, HB 11752, HB 10795, HB 10801, HB 11751 and HB 10794 and further wherein said second binding site comprises a binding site derived from a monoclonal antibody produced by a hybridoma selected from the group consisting of: HB11830, 452F2 (HB 10811), 741F8 (HB 10807), [520C9 (HB 8696)], 759E3 (HB 10808), 454C11 (HB 8484), 387H9 (HB 10802), 113F1 (HB 8490), 317G5 (HB 8485, HB 8691), 34F2 (HB 11052), 650E2 (HB 10812), 35E6 (HB 11769), 266B2 (HB 8486), 106A10 (HB 10789), 260F9 (HB 8488 and HB 8662), 33F8 (HB 8697), 9C6 (HB 10785), 35E10 (HB 10796), 140A7 (HB 10798), 36H3 (HB11768), 788G6 (HB 8692), 200F9 (HB 10791), 697B3 (HB 10806), 120H7 (HB 10790), 203E2 (HB 10799), 254H9 (HB 10792), 245E7 (HB 8489), 2G3 (HB 8491), 369F10 (HB 8682), 15D3 (HB 11342), 421E8 (HB 10793), 310B7 (HB 11752), 32A1 (HB 10795), 219F3 (HB 10801), 42E7 (HB 11751), and 388D4 (HB 10794).

5 through 7. Canceled.